Electronic Version
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Claims

[c1] What I claim as my invention is:

1. A removable remotely controlled propulsion device comprising: an enclosed body; a receiver circuit disposed within said enclosed body being responsive to commands from a remote transmitter and providing electrical signals in response to said commands; a receiver antenna housed within said enclosed body is coupled to said receiver to allow said receiver to receive said commands; a control circuit, housed within said enclosed body, said control circuit being electrically coupled to said receiver for generating electrical control signals; a propulsive device coupled to said enclosed body being electrically coupled to said control circuit, said propulsive device being responsive to said electrical control signals; a battery pack housed in said enclosed body to provide power to said receiver circuit, said control circuit and said propulsive device; and a switch housed in the outer portion of said enclosed body, and accessible from the outside of said enclosed body to electrically connect or disconnect said battery pack from said receiver circuit, said control circuit and said propulsive device.

[c2] *2.* The propulsion device as claimed in claim *1* wherein said propulsive device includes: a sealed housing; a motor contained within said sealed housing, the axle of said motor protruding through said sealed housing; and a propeller coupled to the protruding portion of said axle of said motor.

[c3] *3.* The propulsion device as claimed in claim *2* wherein said device includes two said propulsive devices, coupled to said enclosed body being electrically coupled to said control circuit, said propulsive devices being responsive to said electrical control signals, said propulsive devices cooperating to provide directed locomotion for said propulsion device in response to commands transmitted from said transmitter.

[c4] *4.* The propulsion device as claimed in claim *2* wherein said device includes a rudder coupled to the rear end of said enclosed body and responsive to said electrical control signals, said propulsive device and said rudder cooperating to provide directed locomotion for said propulsion device in response to commands transmitted from said transmitter.

[c5] *5.* The propulsion device as claimed in claim *2* wherein said device includes a servomechanism coupled to said propulsive device to provide rotation to said propulsive

device and responsive to said electrical control signals, said propulsive device and said servomechanism cooperating to provide directed locomotion for said propulsion device in response to commands transmitted from said transmitter.

[c6] *6.* The propulsion device as claimed in claim *1* which provides means to couple external components to said propulsion device comprising: an attachment connection located on the bottom of said enclosed body; an external weight, attachable to said attachment connection, to provide increased stability to said propulsion device; and an external skeg, attachable to said attachment connection, to provide increased tracking control to said propulsion device.

[c7] *7.* The propulsion device as claimed in claim *1*, which provides means to recharge said batteries comprising: an electrical connection attached to the outer surface of said enclosed body and electrically connected to said battery pack; an external charger with a secondary electrical connection; and means to electrically couple said electrical connection to said secondary electrical connection.

[c8] *8.* The propulsion device as claimed in claim *2* wherein a protective cover is coupled to said housing of said

propulsive device to protect said propeller.

[c9] *9.* A remotely controlled buoyant object comprising: A buoyant body having an open cavity formed therein where the cavity opening is in the lower surface of said buoyant body; a removable propulsion device coupled said cavity, wherein said propulsion device includes an enclosed body; a receiver circuit disposed within said propulsion device being responsive to commands from a remote transmitter and providing electrical signals in response to said commands; a receiver antenna housed within said propulsion device is coupled to said receiver to allow said receiver to receive said commands; a control circuit, housed within said propulsion device, said control circuit being electrically coupled to said receiver for generating electrical control signals; a propulsive device coupled to said propulsion device being electrically coupled to said control circuit, said propulsive device being responsive to said electrical control signals; a battery pack housed in said propulsion device to provide power to said receiver circuit, said control circuit and said propulsive device; and a switch housed in the outer portion of said propulsion device, and accessible from the outside of said propulsion device to electrically connect or disconnect said battery pack from said receiver circuit, said control circuit and said propulsive device.

[c10] *10*. The buoyant object as claimed in claim *9* wherein said propulsive device of said propulsion device includes: a sealed housing; a motor contained within said sealed housing, the axle of said motor protruding through said sealed housing; and a propeller coupled to the protruding portion of said axle of said motor.

[c11] *11*. The buoyant object as claimed in claim *10* wherein said propulsion device includes two said propulsive devices, coupled to said enclosed body being electrically coupled to said control circuit, said propulsive devices being responsive to said electrical control signals, said propulsive devices cooperating to provide directed locomotion for said propulsion device in response to commands transmitted from said transmitter.

[c12] *12*. The buoyant object as claimed in claim *10* wherein said propulsion device includes a rudder coupled to the rear end of said enclosed body and responsive to said electrical control signals, said propulsive device and said rudder cooperating to provide directed locomotion for said propulsion device in response to commands transmitted from said transmitter.

[c13] *13*. The buoyant object as claimed in claim *10* wherein said propulsion device includes a servomechanism cou-

pled to said propulsive device to provide rotation to said propulsive device and responsive to said electrical control signals, said propulsive device and said servomechanism cooperating to provide directed locomotion for said propulsion device in response to commands transmitted from said transmitter.

[c14] *14*. The buoyant object as claimed in claim *9*, which provides means to recharge said batteries housed within said propulsion device comprising: an electrical connection attached to the outer surface of said enclosed body and electrically connected to said battery pack; an external charger with a secondary electrical connection; and means to electrically couple said electrical connection to said secondary electrical connection.

[c15] *15*. The buoyant object as claimed in claim *10* in wherein a protective cover is coupled to said housing of said propulsive device to protect said propeller.

[c16] *16*. The buoyant object as claimed in claim *9* which provides means to couple external components to said propulsion device comprising: an attachment connection located on the bottom of said enclosed body; an external weight, attachable to said attachment connection, to provide increased stability to said buoyant object; and an external skeg, attachable to said attachment connection,

to provide increased tracking control to said buoyant object.

[c17] *17*. The buoyant object as claimed in claim *9*, wherein said buoyant object includes an external antenna comprising: an electrically conductive contact coupled to said enclosed body and electrically connected to said receiver antenna; a secondary electrically conductive contact coupled to said buoyant object within said cavity; and a length of antenna wire contained within said buoyant body and electrically connected to said secondary contact, and electrically connected to said receiver antenna.

[c18] *18*. The buoyant object as claimed in claim *9*, wherein said cavity is formed by means of a separate cavity insert permanently attached into said buoyant body, wherein said cavity opening of said cavity insert is in the lower surface of said cavity insert and said buoyant body.

[c19] *19*. The buoyant object as claimed in claim *18*, wherein an internal ring is coupled on the inside surface of said buoyant body to said cavity insert, to provide improved attachment of said cavity insert into said buoyant body.